

ABSTRACT OF THE DISCLOSURE

A radio transmission apparatus for performing radio transmission by use of a plurality of carrier frequencies, including signal processing systems for respective channels.

5 Each signal processing system includes a transmission signal generator that modulates transmission data with a predetermined carrier frequency signal to generate a transmission signal, an amplifier that amplifies the transmission signal, and a variable band-pass filter connected
10 to the output of the amplifier. The outputs of the signal processing systems are combined with a radio transmission signal. At least the center frequency of a pass band of the variable band-pass filter can be changed, with the pass band determined based on the carrier frequency signal of the
15 channel. The apparatus also includes a fault detector configured to detect a fault of each variable band-pass filter.